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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/560,989

12/14/2005

Toshiki Nonaka

52433/828

3742

26646 7590 08/12/2008
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EXAMINER

YEE, DEBORAH

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

08/12/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/560,989	Applicant(s) NONAKA ET AL.	
	Examiner Deborah Yee	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-15 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7 and 10-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/22/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 8 and 9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on May 22, 2008.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 to 4, 6, 7 and 10 to 15 are rejected under 35 U.S.C. 103 (a) as being unpatentable over the computer-generated English translation of Japanese patent 2001-234281 (hereinafter JP'428).
4. JP'281 steel sheet examples A,C-F, H and I on page 7 meet or closely meet the claimed composition; and are used for hot-dip galvanizing and exhibits high formability and high strength, such that $TS \times EL \geq 21,000$.
5. Even though JP'281 teaches a ferritic-martensitic steel alloy containing retained austenite in small amounts, such would not be excluded by Applicant's claimed limitation which recites a ferritic-martensitic structure "without substantially containing retained austenite". Note that the present invention limitation is general without any numerical restriction, and does not exclude retained austenite because the term

"substantially" permits a level of tolerance for some retained austenite to be present.

Hence claims would not patentably distinguish over prior art.

6. Even though JP'281 does not teach equation (1) as recited by the claim 1, such properties attributed to the equation are met by JP'281 ($TS \times EL \geq 21000$). Moreover when calculated, the equation limitation is satisfied by specific examples A, C-F, H and I in table 1 with their respective tensile strength values in MPA shown in table 2. Also it should be noted that it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, see *In re Cooper and Foley*, 57USPQ117.

7. Furthermore, JP'281 steel meets dependent claims. See steel E contains V in amounts within the ranges recited by claim 2: Steel F contains B in an amount within the range recited by claim 3 and when calculated, satisfies equation 2; and Steel I contain Ca in an amount with the range recited by claims 4 and 10.

8. Also JP'281 steel sheet is subjected to hot rolling and cold rolling followed by hot-dip galvanizing treatment which meets claims 6, 7 and 11 to 15.

Response to Arguments

9. Applicant's arguments filed May 22, 2008 have been fully considered but they are not persuasive. It was argued that JP'281 steel sheet contains Co: 0.005-2.0% for increasing C concentration in austenite and contains retained austenite more than 0.9%. In contrast, present invention does not contain Co or retained austenite.

10. It is the Examiner's position that since Applicant's claims recite "contains" which allows for the inclusion of unrecited elements, then the prior art Co is not

excluded. In addition, the claimed limitation "without substantially containing retained austenite" would not exclude small amounts of retained austenite because the term "substantially", permits tolerance outside the range of no retained austenite. To distinguish claims over prior art, it is recommended to delete "substantially".

11. Applicant submitted that according to the present invention, the amount of B, Mn and Al must be selected by Fig. 2 and Expression (2) for improving chemical converted coating treating. On the other hand, in the JP'281, the retained austenite definitely remains in the steel when B is added.

12. It is the Examiner's position that prior art Steel F in table 1 contains B, Mn and Al in amounts within the ranges recited by claim 3; and when calculated, satisfies Expression (2) $500 \times B + Mn + 0.2Al = 500 \times 0.0009 + 2.3 + 0.2 \times 0.32 = 2.814 < 2.9$. In addition retained austenite is not excluded by Applicant's claim. Hence claims would not patentably distinguish over JP'281.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on monday-friday 6:00 am-2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Deborah Yee/
Primary Examiner
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/DY/

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